ABSTRACT

A method and device for deblurring an image having pixels. A blurred image is downloaded into a systolic array processor having an

5   array of processing logic blocks such that each pixel arrives in a respective processing logic block of one pixel or small groups of pixels. Data is sequentially exchanged between processing logic blocks by interconnecting each processing logic block with a predefined number of adjacent processing logic blocks, followed by uploading the deblurred

10   image. The processing logic blocks provide an iterative update of the blurred image by (i) providing feedback of the blurred image prediction error using the deblurred image and (ii) providing feedback of the past deblurred image estimate. The iterative update is implemented in the processing logic blocks by $u(n + 1) = u(n) - K^*(H^* u(n) - y_b) - S^*$

15    $u(n)$.